

Arsenic & Lead Soil Assessment

King County Parcel: 042104-9012

July 17, 2019

Prepared For:

ACH Homes, LLC

9675 SE 36th St. #105

Mercer Island, WA 98040

Attention: Dmitriy Mayzlin

DRAFT

Prepared By:

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1.0	INTRODUCTION	3
1.1	Subject Property Location / Description	3
1.2	Previous Environmental Investigations and Remedial Actions	3
1.2.1	Arsenic & Lead Soil Screening – Ecocon, Inc – April, 2019	3
1.4	Regulatory Compliance and Cleanup Standards	3
2.0	SAMPLE COLLECTION	4
2.1	Pre-Sample Collection Activities	4
2.1.1	Site Characterization	4
2.1.2	Decision Units	4
2.1.3	Number of Samples	5
2.1.4	Sample Locations	5
2.2	Sample Collection	5
3.0	Laboratory Analysis	6
4.0	Summary and Recommendations	9
4.1	Summary	9
4.2	Recommendations	9
5.0	Qualifications of This Report	10
5.1	Use of this Report by Others	10
5.2	Uncertainty May Remain after Completion of Site Investigation and Remedial Activities	11
5.3	Subsurface Conditions Can Change	11
5.4	Soil and Groundwater End Use	11
5.5	Most Environmental Findings Are Professional Opinions	12
6.0	REFERENCES	12

List of Tables

Table 1: Contaminants of Concern, Methods, and Cleanup Levels	4
Table 2: Minimum Number of Sample Locations per Decision Unit	5
Table 3: Arsenic & Lead Analytical Results	6

List of Appendices

Appendix A: Project Figures

- Figure 1: Site Location Map
- Figure 2: Site Topographic Map
- Figure 3: Soil Sample Location Map

Appendix B: Sample Analytical Results

1.0 INTRODUCTION

Ecocon, Inc (ECI) has completed the arsenic and lead investigation for the property known as: King County Parcel: 042104-9012 which is located at the intersection of Pacific Highway/WA-99 & South 304th Street in Federal Way, Washington (Property/ Subject Property) (Figure 1, Appendix A).

The purpose of this investigation was to identify and delineate potential arsenic and lead contamination the guidance of the Department of Ecology (Ecology) concerning arsenic (As) and lead (Pb) resulting from the former Asarco Tacoma Smelter Site (Ecology Publication number 12-09-086).

1.1 Subject Property Location / Description

The Subject Property is located at the intersection of Pacific Highway/WA-99 & South 304th Street in Federal Way, Washington (King County parcel number 042104-9012) and is bounded by:

- SmartCare Daycare and Residential housing to the north;
- Pacific Highway/WA-99 to the west;
- South 304th St to the south; and
- Residential neighborhoods to the east.

The greater vicinity is occupied by primarily residential developments. According to research conducted by ECI, the Subject Property falls into the Moderate Zone (20-100ppm As/Pb) of contamination produced by the Asarco Tacoma Smelter.

1.2 Previous Environmental Investigations and Remedial Actions

1.2.1 Arsenic & Lead Soil Screening – Ecocon, Inc – April, 2019

In April 2019 ECI mobilized to the Subject Property and completed a limited environmental screening focused on potential As and Pb impacted soils. This investigation was conducted as a screening only and was not in accordance with Ecology Remedies Guidance “Sampling & Cleanup of Arsenic & Lead Contaminated Soils, Publication 12-09-086.

Ten sample locations were selected, and a total of 14 samples were collected which included 10 surface soil samples collected between 0 to 6” below ground surface (bgs), and 4 samples of forest duff (the leaves and decomposing matter which rests on the forest floor). Samples were analyzed by Friedman & Bruya of Seattle, Washington. Of the samples analyzed, none were above MTCA method A Cleanup levels (CULs) for As (CUL = 20 ppm) or Pb (CUL = 250 ppm). However, the analytical results revealed that each of the samples contained concentrations below the cleanup level of both As and Pb.

1.4 Regulatory Compliance and Cleanup Standards

Regulatory compliance for this project is based on the Washington Administrative Code (WAC) 173-340 – Model Toxic Control Act (MTCA) - RCW Chapter 70.105D, implemented by the Washington State Department of Ecology. Pursuant to Chapter 70.105D RCW, Ecology has established cleanup standards and requirements for cleanup actions. The rules establishing these standards and requirements were developed by Ecology in consultation with the Science Advisory Board (established under the Act) and

with representatives from local government, citizen, environmental, and business groups. The rules were first published in February 1991, with amendments in January 1996, February 2001, and October 2007.

Sampling procedures and sampling requirements are detailed in the Ecology publications 12-09-086 (Asarco Tacoma Smelter Site Final Interim Action Plan for the Tacoma Smelter Plume) and 12-09-086A (Tacoma Smelter Plume Model Remedies Guidance - Sampling and cleanup of arsenic and lead contaminated soils).

The COCs and the respective CULs are shown in the table below:

Table 1: Contaminants of Concern, Methods, and Cleanup Levels

Table 830-1 Constituent Method-A Soil Cleanup Levels for Unrestricted Land Use (MTCA Cleanup Regulation 173-340-900: Table 740-1)			
Contaminant of Concern (COCs)	Laboratory Method ¹	Soil Cleanup Levels (mg/kg)	
Arsenic (As)	6010, 6020, 6200, or 7060	Average Concentration (all samples combined)	20
		Maximum Concentration (per sample)	40
Lead (Pb)	6010, 6020, 6200, or 7421	Average Concentration (all samples combined)	250
		Maximum Concentration (per sample)	500

2.0 SAMPLE COLLECTION

2.1 Pre-Sample Collection Activities

Sampling activities were completed as outlined in Ecology guidance 12-09-086A. This guidance document recommends the following steps to determine the number and location of samples needed:

- Characterize the Site,
- Divide the Site into decision units,
- Choose the number of samples based on the chart provided (Table 3 in Section 2.1.3),
- Determine sample locations, and
- Determine sample depths

2.1.1 Site Characterization

The Subject Property is currently forested, but the **intended** use of the Property is development into multifamily residential. The intended use of the Property means that the number of sample locations will be based on "Residential, Parks, Commercial".

2.1.2 Decision Units

A decision unit is an area of a property expected to have a different pattern of soil contamination than other areas. It may also be defined as an area of the property with a different use (such as open land and playgrounds). At this time, ECI has not been made aware of any special areas set aside for playgrounds,

gardens, unforested land, or graded areas of the Property which may have triggered the need for additional decision units. For this Property, only one decision unit is required.

2.1.3 Number of Samples

The number of samples required by Ecology is based on the size of a decision unit and the **intended** land use of the property. The table below details the number of sample locations required according to the size and use of a property:

Table 2: Minimum Number of Sample Locations per Decision Unit

Sampling Area	Residential, Parks, Commercial Samples needed		Forest and Open land samples needed	
	Arsenic >100 ppm	Arsenic 20-100 ppm	Arsenic >100 ppm	Arsenic 20-100 ppm
0.25	10	8	8	8
1	20	16	16	12
5	40	32	30	24
10	60	48	40	32
20	80	64	50	40
100	120	90	70	60
>100	120 + 1 per 5 acres	90 + 1 per 5 acres	70 + 1 per 10 acres	60 + 1 per 10 acres

Because the intended use of the Property is residential, the size of the decision unit (entire Property) is closest to 20 acres in size, and the Property has been identified by Ecology as within the 20-100 ppm area, the number of sample locations required is 64. For each decision unit, an additional 25% of samples are required at depths between 6 and 12 inches. Because forest duff is present at the Subject Property, six forest duff samples are also required, which can be analyzed as a single composite sample. ECI previously collected 10 soil samples from 10 discrete locations which may be used to offset the number needed for completion of the current investigation.

The total number of samples collected from the remaining 54 required sample locations was 70 (69 discrete samples and 1 forest duff composite sample).

2.1.4 Sample Locations

Sample locations were laid out in a grid evenly spaced throughout the Property. Each grid was approximately 120 ft x 120 ft in length or 14,700 sq ft. Grid layout and sample locations are presented in Figure 3 in Appendix A.

2.2 Sample Collection

On June 11th and 12th, 2019, ECI environmental professionals mobilized to the site and collected a total of 69 soil samples and 6 forest duff samples. Samples were collected using properly decontaminated stainless steel sampling equipment and transferred into clean resealable sample bags. Forest duff samples were collected in six locations and combined into a composite sample. New nitrile gloves were used during

sample collection and changed between samples and sampling equipment was decontaminated using a mixture of deionized water and tri-sodium phosphate (TSOP) to reduce the possibility of cross-contamination. Samples were transferred under industry standard chain of custody protocol to Friedman & Bruya of Seattle, Washington on June 13th, 2019.

Sample locations and quantity were determined based on Ecology Guidance Document 12-09-086A. Sample locations and grid layout are presented in Figure 3, Appendix A.

3.0 LABORATORY ANALYSIS

Soil samples were analyzed for total arsenic and total lead by EPA Method 200.8 and 6020B respectively. Analytical results of sample F8-0-6" revealed a result above the maximum 40 mg/kg arsenic. None of the samples exceed the maximum concentration of 500 mg/kg lead cleanup level. The average arsenic and lead were 14.1 and 41.4 respectively, below the 20 mg/kg arsenic and 250 mg/kg lead cleanup levels.

Sample results are detailed in Table 3 below:

Table 3: Arsenic & Lead Analytical Results

Sample ID	Sample Depth (in)	Date Sampled	Soil Sample Results (EPA 200.8 / 6020B)	
			Arsenic (mg/kg)	Lead (mg/kg)
Previous Investigation, April 22 2019				
Forest Duff Discrete Samples				
S1-Duff	Surface	4/22/2019	12.3	32.1
S3-Duff	Surface	4/22/2019	9.36	25.8
S5-Duff	Surface	4/22/2019	7.42	74.9
S7-Duff	Surface	4/22/2019	8.72	56.4
Soil Samples				
S1-0-6"	0-6	4/22/2019	11.2	24.1
S2-0-6"	0-6	4/22/2019	3.61	6.39
S3-0-6"	0-6	4/22/2019	16.2	40.3
S4-0-6"	0-6	4/22/2019	3.32	4.48
S5-0-6"	0-6	4/22/2019	3.59	6.99
S6-0.6"	0-6	4/22/2019	12.7	29.3
S7-0-6"	0-6	4/22/2019	8.49	17
S8-0-6"	0-6	4/22/2019	6.79	16.2
S9-0-6"	0-6	4/22/2019	10	24.1
S10-0-6"	0-6	4/22/2019	3.1	11.5
Average Concentration			7.9	18.0
June 11th and 12th Sample Collection				
A1-0-6"	0-6	6/13/2019	9.04	35.4
A2-0-6"	0-6	6/13/2019	14.9	20.4
A3-0-6"	0-6	6/13/2019	6.21	9.69
A4-0-6"	0-6	6/13/2019	14.2	31.9
B1-0-6"	0-6	6/13/2019	4.01	17.5

Arsenic and Lead - Sampling & Analysis Plan

King County Parcel: 0421049012

July 16, 2019

Sample ID	Sample Depth (in)	Date Sampled	Soil Sample Results (EPA 200.8 / 6020B)	
			Arsenic (mg/kg)	Lead (mg/kg)
B1-6-12 "	6-12	6/13/2019	4.14	18.3
B2-0-6"	0-6	6/13/2019	4.45	8.93
B2-6-12"	6-12	6/13/2019	3.95	7.28
B4-0-6"	0-6	6/13/2019	22.9	71.1
B4-6-12"	6-12	6/13/2019	7.88	16.5
B5-0-6"	0-6	6/13/2019	16	36.6
B6-0-6"	0-6	6/13/2019	29.4	194
C2-0-6"	0-6	6/13/2019	39.6	89.2
C3-0-6"	0-6	6/13/2019	8.62	20.5
C4-0-6"	0-6	6/13/2019	12.1	33.4
C4-0-6-12"	6-12	6/13/2019	3.36	5.61
C5-0-6"	0-6	6/13/2019	6.85	13.4
C5-6-12 "	6-12	6/13/2019	5.06	10.3
C6-0-6"	0-6	6/13/2019	27	77.9
D1-0-6"	0-6	6/13/2019	5.16	11.7
D3-0-6"	0-6	6/13/2019	19.5	45.2
D4-0-6"	0-6	6/13/2019	6.38	7.3
D4-0-6"	0-6	6/13/2019	14	34.6
D4-6-12"	6-12	6/13/2019	8.76	28.1
D6-0-6"	0-6	6/13/2019	25.9	73.2
D7-0-6"	0-6	6/13/2019	32.6	95.7
D8-0-6"	0-6	6/13/2019	12.5	24.9
D8-6-12 "	6-12	6/13/2019	10.2	26.9
Duff		6/13/2019	23.6	101
E1-0-6"	0-6	6/13/2019	15.2	61.5
E2-0-6"	0-6	6/13/2019	10.3	20.8
E2-6-12 "	6-12	6/13/2019	11.3	26.3
E3-0-6"	0-6	6/13/2019	9.37	37.3
E4-0-6"	0-6	6/13/2019	11.9	31.5
E5-0-6"	0-6	6/13/2019	27.1	76
E6-0-6"	0-6	6/13/2019	23	42.3
E7-0-6"	0-6	6/13/2019	34	64.5
E7-6-12 "	6-12	6/13/2019	9.76	16.8
E8-0-6"	0-6	6/13/2019	18.5	42.8
F4-0-6"	0-6	6/13/2019	13.2	17.1
F4-6-12 "	6-12	6/13/2019	16.2	25.5
F5-0-6"	0-6	6/13/2019	16.5	34.6
F6-0-6"	0-6	6/13/2019	8.84	8.94
F7-0-6"	0-6	6/13/2019	26.2	42.1
F8-0-6"	0-6	6/13/2019	43	93.7

Arsenic and Lead - Sampling & Analysis Plan

King County Parcel: 0421049012

July 16, 2019

Sample ID	Sample Depth (in)	Date Sampled	Soil Sample Results (EPA 200.8 / 6020B)	
			Arsenic (mg/kg)	Lead (mg/kg)
G5-0-6"	0-6	6/13/2019	10.2	21.7
G7-0-6"	0-6	6/13/2019	17.1	43.3
G8-0-6"	0-6	6/13/2019	3.57	11.6
G8-0-6"	0-6	6/13/2019	11.2	17
G8-6-12 "	6-12	6/13/2019	4.79	21.3
H4-0-6"	0-6	6/13/2019	12.4	53.2
H5-0-6"	0-6	6/13/2019	5.32	14.2
H6-0-6"	0-6	6/13/2019	17.6	56.8
H8-0-6"	0-6	6/13/2019	13	33.4
I4-0-6"	0-6	6/13/2019	12.9	53.6
I5-0-6"	0-6	6/13/2019	10	28.8
I56-12 "	6-12	6/13/2019	8.71	29.6
I6-0-6"	0-6	6/13/2019	32.8	73.1
I7-0-6"	0-6	6/13/2019	14.3	45.8
I7-6-12 "	6-12	6/13/2019	7.72	22.7
I8-0-6"	0-6	6/13/2019	9.07	43
J4-0-6"	0-6	6/13/2019	10.8	127
J5-0-6"	0-6	6/13/2019	9.32	41.7
J7-0-6"	0-6	6/13/2019	25	77.3
J7-6-12 "	6-12	6/13/2019	26.5	78.2
J8-0-6"	0-6	6/13/2019	3.84	14.3
K4-0-6"	0-6	6/13/2019	4.03	69
K5-0-6"	0-6	6/13/2019	4.02	49.1
K7-0-6"	0-6	6/13/2019	3.58	21.6
Average Concentration			14.1	41.4
Laboratory Reporting Limit			1	1
Average Concentration CUL as per 12-09-086A			20	250
Maximum Concentration CUL as per 12-09-086A			40	500
Ecology MTCA Method A Cleanup Levels			20	250

Notes:

Bold indicates a detected concentration that is below Ecology MTCA Method A Cleanup Levels

Bold and Shaded with a blue background indicates the detected concentration exceeds Ecology MTCA Method A Cleanup Level, but that the sample is below the maximum concentration allowed by publication 12-09-086A.

Bold and Shaded with an orange background indicates the detected concentration exceeds the maximum concentration allowed by publication 12-09-086A.

According to Ecology Publication 12-09-086-A, if arsenic or lead levels are elevated, remediation is necessary. Elevated means: 1) Average arsenic greater than 20 mg/kg (ppm) or maximum (any one sample) arsenic greater than 40 mg/kg and 2) average lead greater than 250 mg/kg; or maximum lead is greater than 500 ppm.

4.0 SUMMARY AND RECCOMENDATIONS

4.1 Summary

On June 11th and June 12th, 2019 ECI professionals collected a total of 69 soil samples and one forest duff sample from the Subject Property. The purpose of this sampling event was to fulfill testing requirements set forth in Ecology Publication 12-09-086A which concerns areas affected by the Tacoma Smelter Plume.

The results of the analysis performed on the samples indicates that the average concentrations for Pb and As for the Subject Property are below the concentration indicated by 12-09-086A which would trigger a cleanup action. However, one sample (F8-0-6") was found to be above the maximum allowed concentration for a discreet soil sample for As, which triggers a cleanup in that area of the Subject property.

4.2 Recommendations

Based on the results of this investigation, further action is necessary in the area with elevated levels of arsenic and/or lead (grid area F8). Ecology's guidance provides two permanent remediation options for sites with elevated lead and/or arsenic concentrations. They are: 1) Excavation and Removal and 2) Soil Mixing. Depending on the grade and fill specifications for the planned development, mixing may be the most appropriate and cost-effective option. Details regarding how this remedy should be implemented are provided in excerpts from the Ecology Guidance Publication in the tables below:

	Model Remedy	Action	Considerations
Permanent	Excavate & Remove (Ch. 3)	Excavate contaminated soils and properly dispose of them.	⇒ The top 6" of soil must have <20 ppm average arsenic and <250 ppm average lead after excavation. Take samples at depth to make sure you remove all contamination. ⇒ Performance monitoring required.
	Mix (Ch. 4)	Mix the top 6-12" of contaminated soils with imported soils or deeper, clean soil.	⇒ Not for soils >40 ppm average arsenic. ⇒ Performance monitoring required.

Tacoma Smelter Plume Model Remedies Guidance Publication Number 12-09-086-A: Table 2-Page 17

Things to Consider:

Arsenic and lead levels: Use mixing only when <40 ppm arsenic and <500 ppm lead (average).

Pros:

- Permanent.
- Does not require excavation or off-site disposal.

Cons:

- Low remediation levels.
- Only practical for contamination not deeper than 12".
- Higher sampling costs.
- Extra sampling may cause delays.

Costs: Mixing can be labor-intensive. However, there are no long term costs because the remedy is permanent. You also do not have the cost of soil disposal. Estimate costs using the worksheet at the end of the chapter.

Tacoma Smelter Plume Model Remedies Guidance Publication Number 12-09-086-A: Page 19

ECI recommends the Subject Property be entered into the Ecology Voluntary Cleanup Program (VCP). This process will provide Ecology with the necessary information to provide a No Further Action determination following corrective actions. Grid area F8, measuring approximately 50 feet by 50 feet or approximately 2500 square feet. In order to move forward with corrective action, a work plan will need to be developed and reviewed by Ecology. This is typically completed as part of the VCP process. Once approved, corrective action can be completed. This process is expected to take between 60 and 90 days. Should the corrective action work move forward, a Project Schedule of Values will be prepared. Corrective action costs are anticipated to range between \$20,000 and \$30,000. This cost estimate dependent on the depth of excavation and confirmation (post remediation) sample results.

ECI appreciates the opportunity to provide environmental consulting services on this project. Should you have any questions, please contact our office at (253) 238-9270.

5.0 QUALIFICATIONS OF THIS REPORT

Some clients, design professionals and contractors may not recognize that the geoscience practices (geotechnical engineering, geology, and environmental science) are far less exact than other engineering and natural science disciplines. This lack of understanding can create unrealistic expectations that could lead to disappointments, claims and disputes. EcoCon Inc. includes these explanatory "limitations" provisions in our reports to help reduce such risks. Please confer with EcoCon if you are unclear how these "Report Limitations and Guidelines for Use" apply to your project or Site.

5.1 Use of this Report by Others

Our report was prepared for the exclusive use of American Classic Homes and designated agent/ensigns. This report may be provided to regulatory agencies for review if requested or required. No other party may rely on the product of our services unless we agree in advance to such reliance in writing. This is to provide our firm with reasonable protection against open-ended liability claims by third parties with whom there would otherwise be no contractual limits to their actions. Within the limitations of scope, schedule and budget, our services have been executed in accordance with our Agreement with

Porters/ARS and generally accepted environmental practices in this area at the time this report was prepared.

This report has been prepared for subsurface investigation activities at the Subject Property. EcoCon considered a number of unique, project-specific factors when establishing the scope of services for this project and report. No one except Porters/ARS and designated agent/ensigns should rely on this environmental report without first conferring with ECI. This report should not be applied for any purpose or project except the one originally contemplated.

Unless EcoCon specifically indicates otherwise, do not rely on this report if it was:

- Not prepared for you,
- Not prepared for your project,
- Not prepared for the specific site explored, or
- Completed before important site changes were made.

If important changes are made after the date of this report, EcoCon Inc. should be given the opportunity to review our interpretations and recommendations and provide written modifications or confirmation, as appropriate.

5.2 Uncertainty May Remain after Completion of Site Investigation and Remedial Activities

The investigation and remediation activities completed in a portion of a site cannot wholly eliminate uncertainty regarding the potential for contamination in connection with the entire property. Our interpretation of subsurface conditions in this study is based on field observations and chemical analytical data from the locations sampled. It is always possible that contamination exists in areas that were not explored, sampled, or analyzed.

5.3 Subsurface Conditions Can Change

This environmental report is based on conditions that existed at the time the study was performed. The findings and conclusions of this report may be affected by the passage of time, by manmade events such as construction on or adjacent to the Site, by new releases of hazardous substances, or by natural events such as floods, earthquakes, slope instability or groundwater fluctuations. Always contact EcoCon before applying this report to determine if it is still applicable.

5.4 Soil and Groundwater End Use

The cleanup levels referenced in this report are Site- and situation-specific and could change with time due to regulatory or Site changes. The cleanup levels may not be applicable for other sites or for other on-site uses of the affected media (soil and/or groundwater).

Note that hazardous substances may be present in some of the Site soil and/or groundwater at detectable concentrations that are less than the referenced cleanup levels. Because these cleanup levels can change, EcoCon should be contacted to evaluate the potential for associated environmental liabilities prior to the export of soil or groundwater from the Subject Site or reuse of the affected media on the Site. We cannot be responsible for potential environmental liability arising out of the transfer of soil and/or groundwater from the Subject Site to another location or its reuse on the Site in instances that we were not aware of or could not control.

5.5 Most Environmental Findings Are Professional Opinions

Our interpretations of subsurface conditions are based on field observations and chemical analytical data from the locations sampled at the Site. Site exploration identifies subsurface conditions only at those points where subsurface tests are conducted, or samples are taken. EcoCon Inc. reviewed field and laboratory data and then applied our professional judgment to render an opinion about subsurface conditions throughout the Site. Actual subsurface conditions may differ – sometimes significantly – from those indicated in this report. Our report, conclusions and interpretations should not be construed as a warranty of the subsurface conditions.

6.0 REFERENCES

Department of Ecology Publication Number 12-09-086:

<https://fortress.wa.gov/ecy/publications/documents/1209086.pdf>

King County Assessor records:

<https://blue.kingcounty.com/Assessor/eRealProperty/Dashboard.aspx?ParcelNbr=0421049012>

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List of Appendices

Appendix A: Project Figures

Figure 1 – Site Location Map

Figure 2 – Site Topographic Map

Figure 3 – Soil Sample Location Map

Appendix B: Analytical Results

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Appendix A

Project Figures

Figure 1 – Site Location Map

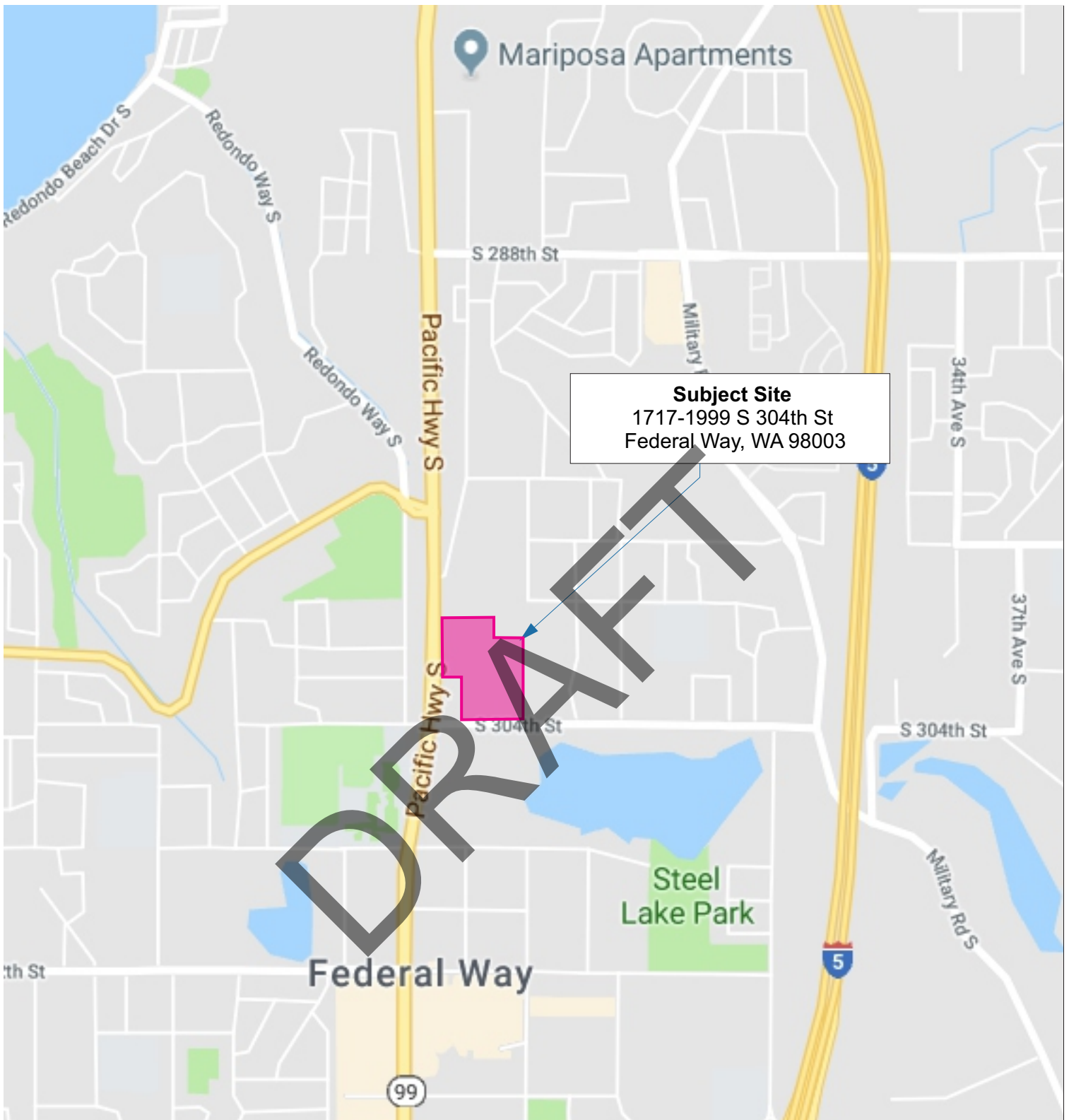
Figure 2 – Site Topographic Map

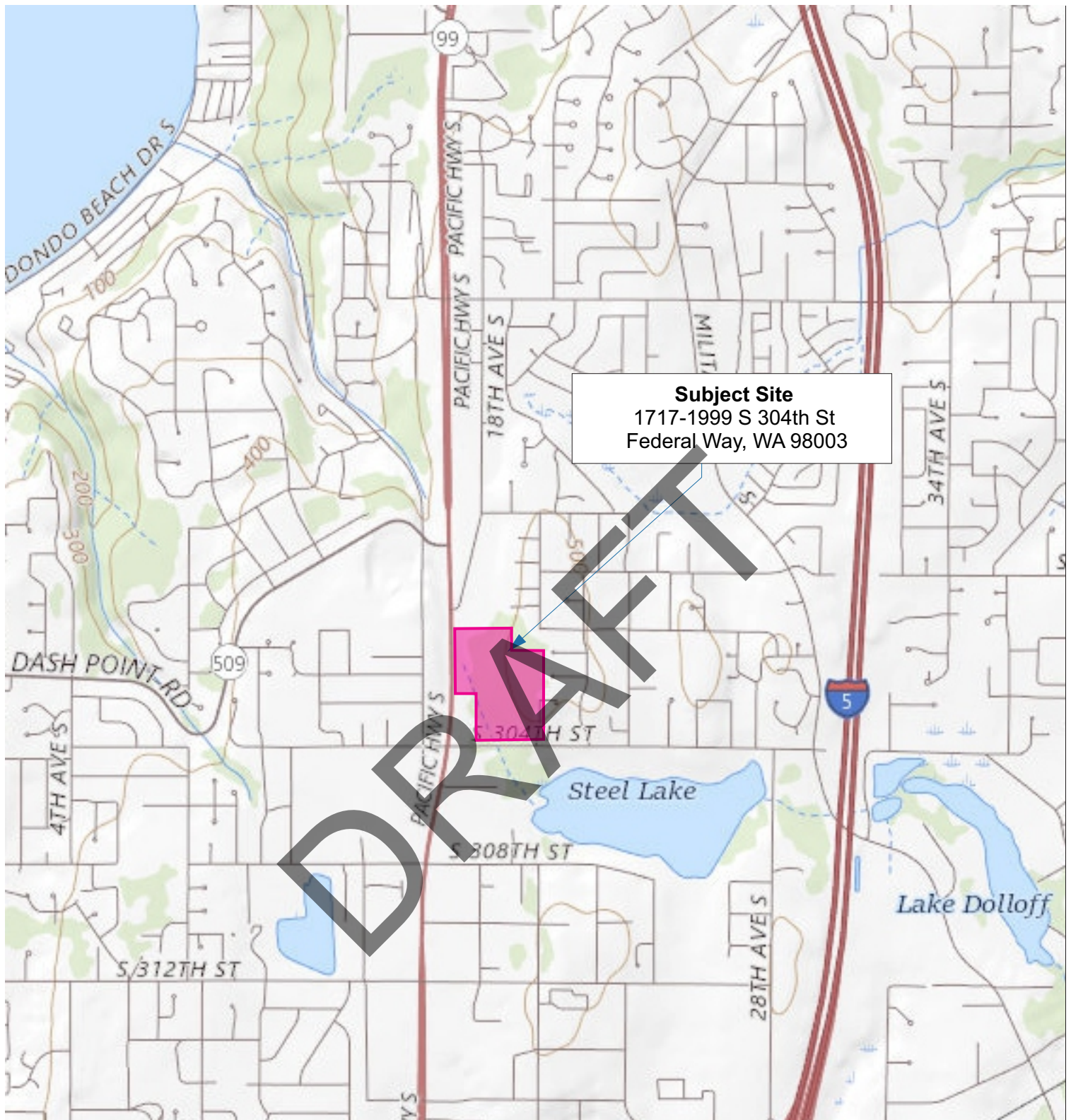
Figure 3 – Soil Sample Location Map

Appendix A

Project Figures

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Site Topographic Map
Arsenic & Lead Sampling Report
1717-1999 S 304th St
Federal Way, WA 98003

Date: July 10, 2019
Completed By: K. Spencer
Reviewed By: S. Spencer
Version: R1-051019
Project No.: 0717-01-01

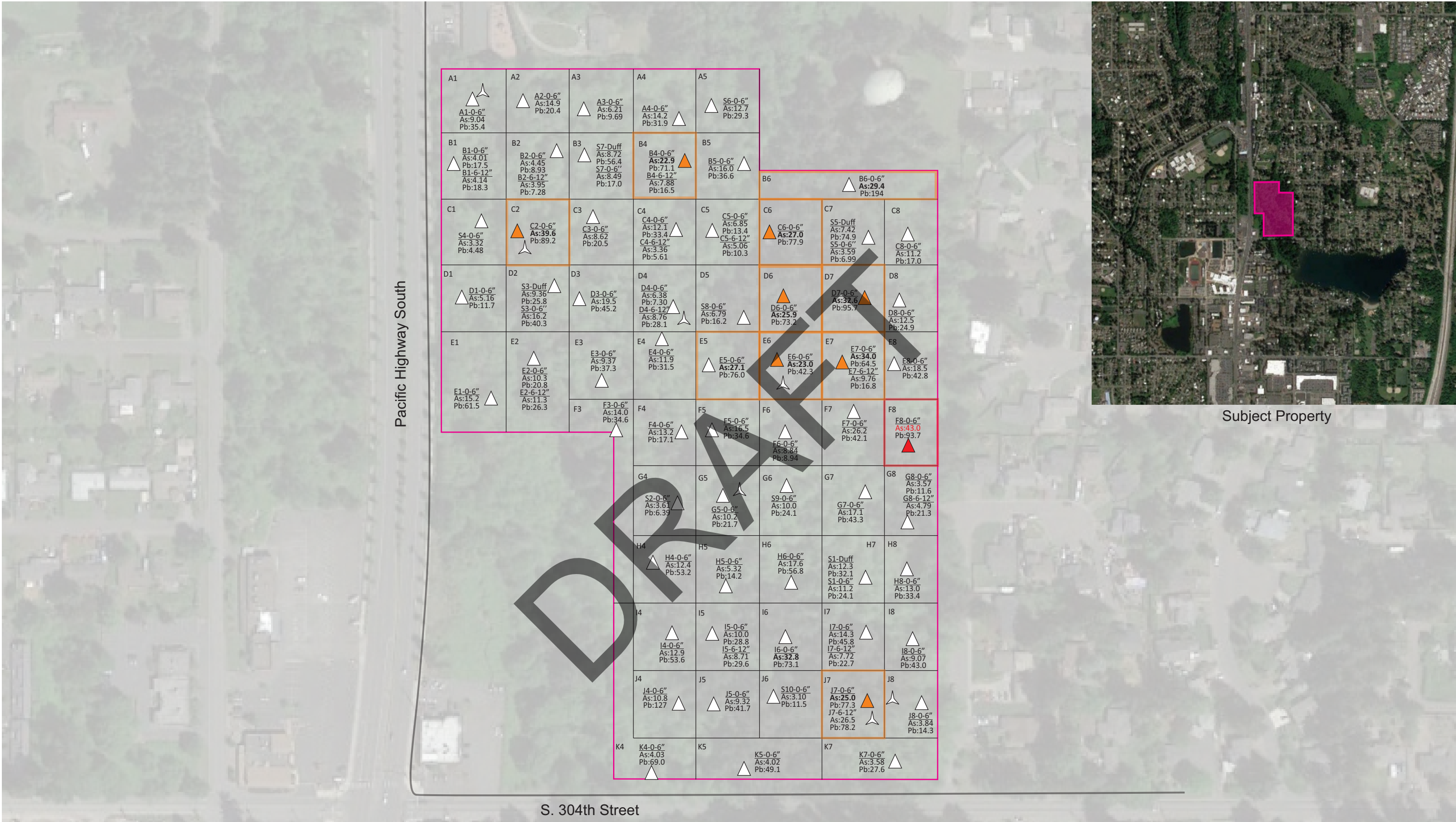
Figure No.:

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Sheet 02 of 03



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Appendix B

Analytical Results

Appendix B

Analytical Results

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

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June 24, 2019

Steve Spencer, Project Manager
EcoCon, Inc.
P.O. Box 153
Fox Island, WA 98333

Dear Mr Spencer:

Included are the results from the testing of material submitted on June 13, 2019 from the 0717-02-01 American Classic Homes, F&BI 906258 project. There are 80 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days, or as directed by the Chain of Custody document. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl
Project Manager

Enclosures
EMS0624R.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on June 13, 2019 by Friedman & Bruya, Inc. from the EcoCon 0717-02-01 American Classic Homes, F&BI 906258 project. Samples were logged in under the laboratory ID's listed below.

<u>Laboratory ID</u>	<u>EcoCon</u>
906258 -01	B4-6-12"
906258 -02	A1-0-6"
906258 -03	B2-6-12"
906258 -04	D1-0-6"
906258 -05	B1-0-6"
906258 -06	F4-0-6"
906258 -07	D4-6-12"
906258 -08	C3-0-6"
906258 -09	C4-0-6"
906258 -10	B4-0-6"
906258 -11	A4-0-6"
906258 -12	K5-0-6"
906258 -13	F5-0-6"
906258 -14	A3-0-6"
906258 -15	B2-0-6"
906258 -16	D4-0-6"
906258 -17	D8-0-6"
906258 -18	E3-0-6"
906258 -19	C2-0-6"
906258 -20	C4-0-6-12"
906258 -21	I6-0-6"
906258 -22	I5-0-6"
906258 -23	F6-0-6"
906258 -24	I8-0-6"
906258 -25	K4-0-6"
906258 -26	E4-0-6"
906258 -27	J8-0-6"
906258 -28	H6-0-6"
906258 -29	G7-0-6"
906258 -30	B5-0-6"
906258 -31	G8-6-12 "
906258 -32	G8-0-6"
906258 -33	D4-0-6"
906258 -34	D3-0-6"
906258 -35	K7-0-6"
906258 -36	D8-6-12 "

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE (continued)

<u>Laboratory ID</u>	<u>EcoCon</u>
906258 -37	E7-0-6"
906258 -38	H8-0-6"
906258 -39	H5-0-6"
906258 -40	G8-0-6"
906258 -41	I7-0-6"
906258 -42	D6-0-6"
906258 -43	D7-0-6"
906258 -44	F8-0-6"
906258 -45	E8-0-6"
906258 -46	A2-0-6"
906258 -47	I4-0-6"
906258 -48	E5-0-6"
906258 -49	B6-0-6"
906258 -50	C5-6-12 "
906258 -51	I56-12 "
906258 -52	C6-0-6"
906258 -53	J5-0-6"
906258 -54	E1-0-6"
906258 -55	B1-6-12 "
906258 -56	F7-0-6"
906258 -57	E2-6-12 "
906258 -58	J4-0-6"
906258 -59	J7-6-12 "
906258 -60	J7-0-6"
906258 -61	E7-6-12 "
906258 -62	I7-6-12 "
906258 -63	G5-0-6"
906258 -64	F4-6-12 "
906258 -65	H4-0-6"
906258 -66	E6-0-6"
906258 -67	C5-0-6"
906258 -68	E2-0-6"
906258 -69	Duff

All quality control requirements were acceptable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	B4-6-12"	Client:	EcoCon
Date Received:	06/13/19	Project:	0717-02-01 American Classic Homes
Date Extracted:	06/18/19	Lab ID:	906258-01
Date Analyzed:	06/18/19	Data File:	906258-01.103
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
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Arsenic	7.88
Lead	16.5

DRAFT

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	A1-0-6"	Client:	EcoCon
Date Received:	06/13/19	Project:	0717-02-01 American Classic Homes
Date Extracted:	06/18/19	Lab ID:	906258-02
Date Analyzed:	06/18/19	Data File:	906258-02.104
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
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Arsenic	9.04
Lead	35.4

DRAFT

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	B2-6-12"	Client:	EcoCon
Date Received:	06/13/19	Project:	0717-02-01 American Classic Homes
Date Extracted:	06/18/19	Lab ID:	906258-03
Date Analyzed:	06/18/19	Data File:	906258-03.105
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
----------	------------------------------

Arsenic	3.95
Lead	7.28

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FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	D1-0-6"	Client:	EcoCon
Date Received:	06/13/19	Project:	0717-02-01 American Classic Homes
Date Extracted:	06/18/19	Lab ID:	906258-04
Date Analyzed:	06/18/19	Data File:	906258-04.106
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
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Arsenic	5.16
Lead	11.7

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FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	B1-0-6"	Client:	EcoCon
Date Received:	06/13/19	Project:	0717-02-01 American Classic Homes
Date Extracted:	06/18/19	Lab ID:	906258-05
Date Analyzed:	06/18/19	Data File:	906258-05.107
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
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Arsenic	4.01
Lead	17.5

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FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	F4-0-6"	Client:	EcoCon
Date Received:	06/13/19	Project:	0717-02-01 American Classic Homes
Date Extracted:	06/18/19	Lab ID:	906258-06
Date Analyzed:	06/18/19	Data File:	906258-06.108
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
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Arsenic	13.2
Lead	17.1

DRAFT

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	D4-6-12"	Client:	EcoCon
Date Received:	06/13/19	Project:	0717-02-01 American Classic Homes
Date Extracted:	06/18/19	Lab ID:	906258-07
Date Analyzed:	06/18/19	Data File:	906258-07.118
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
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Arsenic	8.76
Lead	28.1

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FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	C3-0-6"	Client:	EcoCon
Date Received:	06/13/19	Project:	0717-02-01 American Classic Homes
Date Extracted:	06/18/19	Lab ID:	906258-08
Date Analyzed:	06/18/19	Data File:	906258-08.119
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
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Arsenic	8.62
Lead	20.5

DRAFT

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	C4-0-6"	Client:	EcoCon
Date Received:	06/13/19	Project:	0717-02-01 American Classic Homes
Date Extracted:	06/18/19	Lab ID:	906258-09
Date Analyzed:	06/18/19	Data File:	906258-09.120
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
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Arsenic	12.1
Lead	33.4

DRAFT

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	B4-0-6"	Client:	EcoCon
Date Received:	06/13/19	Project:	0717-02-01 American Classic Homes
Date Extracted:	06/18/19	Lab ID:	906258-10
Date Analyzed:	06/18/19	Data File:	906258-10.131
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
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Arsenic	22.9
Lead	71.1

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FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	A4-0-6"	Client:	EcoCon
Date Received:	06/13/19	Project:	0717-02-01 American Classic Homes
Date Extracted:	06/18/19	Lab ID:	906258-11
Date Analyzed:	06/18/19	Data File:	906258-11.132
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
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Arsenic	14.2
Lead	31.9

DRAFT

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	K5-0-6"	Client:	EcoCon
Date Received:	06/13/19	Project:	0717-02-01 American Classic Homes
Date Extracted:	06/18/19	Lab ID:	906258-12
Date Analyzed:	06/18/19	Data File:	906258-12.137
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
----------	------------------------------

Arsenic	4.02
Lead	49.1

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FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	F5-0-6"	Client:	EcoCon
Date Received:	06/13/19	Project:	0717-02-01 American Classic Homes
Date Extracted:	06/18/19	Lab ID:	906258-13
Date Analyzed:	06/18/19	Data File:	906258-13.138
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
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Arsenic	16.5
Lead	34.6

DRAFT

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	A3-0-6"	Client:	EcoCon
Date Received:	06/13/19	Project:	0717-02-01 American Classic Homes
Date Extracted:	06/18/19	Lab ID:	906258-14
Date Analyzed:	06/18/19	Data File:	906258-14.139
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
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Arsenic	6.21
Lead	9.69

DRAFT

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	B2-0-6"	Client:	EcoCon
Date Received:	06/13/19	Project:	0717-02-01 American Classic Homes
Date Extracted:	06/18/19	Lab ID:	906258-15
Date Analyzed:	06/18/19	Data File:	906258-15.140
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
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Arsenic	4.45
Lead	8.93

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FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	D4-0-6"	Client:	EcoCon
Date Received:	06/13/19	Project:	0717-02-01 American Classic Homes
Date Extracted:	06/18/19	Lab ID:	906258-16
Date Analyzed:	06/18/19	Data File:	906258-16.141
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
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Arsenic	6.38
Lead	7.30

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FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	D8-0-6"	Client:	EcoCon
Date Received:	06/13/19	Project:	0717-02-01 American Classic Homes
Date Extracted:	06/18/19	Lab ID:	906258-17
Date Analyzed:	06/18/19	Data File:	906258-17.142
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
----------	------------------------------

Arsenic	12.5
Lead	24.9

DRAFT

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	E3-0-6"	Client:	EcoCon
Date Received:	06/13/19	Project:	0717-02-01 American Classic Homes
Date Extracted:	06/18/19	Lab ID:	906258-18
Date Analyzed:	06/18/19	Data File:	906258-18.143
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
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Arsenic	9.37
Lead	37.3

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FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	C2-0-6"	Client:	EcoCon
Date Received:	06/13/19	Project:	0717-02-01 American Classic Homes
Date Extracted:	06/18/19	Lab ID:	906258-19
Date Analyzed:	06/18/19	Data File:	906258-19.144
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
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Arsenic	39.6
Lead	89.2

DRAFT

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	C4-0-6-12"	Client:	EcoCon
Date Received:	06/13/19	Project:	0717-02-01 American Classic Homes
Date Extracted:	06/18/19	Lab ID:	906258-20
Date Analyzed:	06/18/19	Data File:	906258-20.147
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
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Arsenic	3.36
Lead	5.61

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FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	I6-0-6"	Client:	EcoCon
Date Received:	06/13/19	Project:	0717-02-01 American Classic Homes
Date Extracted:	06/18/19	Lab ID:	906258-21
Date Analyzed:	06/18/19	Data File:	906258-21.152
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
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Arsenic	32.8
Lead	73.1

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FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	I5-0-6"	Client:	EcoCon
Date Received:	06/13/19	Project:	0717-02-01 American Classic Homes
Date Extracted:	06/18/19	Lab ID:	906258-22
Date Analyzed:	06/18/19	Data File:	906258-22.155
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
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Arsenic	10.0
Lead	28.8

DRAFT

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	F6-0-6"	Client:	EcoCon
Date Received:	06/13/19	Project:	0717-02-01 American Classic Homes
Date Extracted:	06/18/19	Lab ID:	906258-23
Date Analyzed:	06/18/19	Data File:	906258-23.156
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
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Arsenic	8.84
Lead	8.94

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FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	I8-0-6"	Client:	EcoCon
Date Received:	06/13/19	Project:	0717-02-01 American Classic Homes
Date Extracted:	06/18/19	Lab ID:	906258-24
Date Analyzed:	06/18/19	Data File:	906258-24.159
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
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Arsenic	9.07
Lead	43.0

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FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	K4-0-6"	Client:	EcoCon
Date Received:	06/13/19	Project:	0717-02-01 American Classic Homes
Date Extracted:	06/18/19	Lab ID:	906258-25
Date Analyzed:	06/18/19	Data File:	906258-25.160
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
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Arsenic	4.03
Lead	69.0

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FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	E4-0-6"	Client:	EcoCon
Date Received:	06/13/19	Project:	0717-02-01 American Classic Homes
Date Extracted:	06/18/19	Lab ID:	906258-26
Date Analyzed:	06/18/19	Data File:	906258-26.161
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
----------	------------------------------

Arsenic	11.9
Lead	31.5

DRAFT

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	J8-0-6"	Client:	EcoCon
Date Received:	06/13/19	Project:	0717-02-01 American Classic Homes
Date Extracted:	06/18/19	Lab ID:	906258-27
Date Analyzed:	06/18/19	Data File:	906258-27.162
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
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Arsenic	3.84
Lead	14.3

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FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	H6-0-6"	Client:	EcoCon
Date Received:	06/13/19	Project:	0717-02-01 American Classic Homes
Date Extracted:	06/18/19	Lab ID:	906258-28
Date Analyzed:	06/18/19	Data File:	906258-28.163
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
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Arsenic	17.6
Lead	56.8

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FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	G7-0-6"	Client:	EcoCon
Date Received:	06/13/19	Project:	0717-02-01 American Classic Homes
Date Extracted:	06/18/19	Lab ID:	906258-29
Date Analyzed:	06/18/19	Data File:	906258-29.164
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
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Arsenic	17.1
Lead	43.3

DRAFT

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	B5-0-6"	Client:	EcoCon
Date Received:	06/13/19	Project:	0717-02-01 American Classic Homes
Date Extracted:	06/18/19	Lab ID:	906258-30
Date Analyzed:	06/18/19	Data File:	906258-30.165
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
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Arsenic	16.0
Lead	36.6

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FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	G8-6-12 “	Client:	EcoCon
Date Received:	06/13/19	Project:	0717-02-01 American Classic Homes
Date Extracted:	06/18/19	Lab ID:	906258-31
Date Analyzed:	06/18/19	Data File:	906258-31.166
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
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Arsenic	4.79
Lead	21.3

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FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	G8-0-6"	Client:	EcoCon
Date Received:	06/13/19	Project:	0717-02-01 American Classic Homes
Date Extracted:	06/18/19	Lab ID:	906258-32
Date Analyzed:	06/18/19	Data File:	906258-32.167
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
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Arsenic	3.57
Lead	11.6

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FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	D4-0-6"	Client:	EcoCon
Date Received:	06/13/19	Project:	0717-02-01 American Classic Homes
Date Extracted:	06/18/19	Lab ID:	906258-33
Date Analyzed:	06/18/19	Data File:	906258-33.168
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
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Arsenic	14.0
Lead	34.6

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FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	D3-0-6"	Client:	EcoCon
Date Received:	06/13/19	Project:	0717-02-01 American Classic Homes
Date Extracted:	06/18/19	Lab ID:	906258-34
Date Analyzed:	06/18/19	Data File:	906258-34.171
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
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Arsenic	19.5
Lead	45.2

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FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	K7-0-6"	Client:	EcoCon
Date Received:	06/13/19	Project:	0717-02-01 American Classic Homes
Date Extracted:	06/18/19	Lab ID:	906258-35
Date Analyzed:	06/18/19	Data File:	906258-35.172
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
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Arsenic	3.58
Lead	21.6

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FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	D8-6-12 “	Client:	EcoCon
Date Received:	06/13/19	Project:	0717-02-01 American Classic Homes
Date Extracted:	06/18/19	Lab ID:	906258-36
Date Analyzed:	06/18/19	Data File:	906258-36.173
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
----------	------------------------------

Arsenic	10.2
Lead	26.9

DRAFT

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	E7-0-6"	Client:	EcoCon
Date Received:	06/13/19	Project:	0717-02-01 American Classic Homes
Date Extracted:	06/18/19	Lab ID:	906258-37
Date Analyzed:	06/18/19	Data File:	906258-37.174
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
----------	------------------------------

Arsenic	34.0
Lead	64.5

DRAFT

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	H8-0-6"	Client:	EcoCon
Date Received:	06/13/19	Project:	0717-02-01 American Classic Homes
Date Extracted:	06/18/19	Lab ID:	906258-38
Date Analyzed:	06/18/19	Data File:	906258-38.175
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
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Arsenic	13.0
Lead	33.4

DRAFT

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	H5-0-6"	Client:	EcoCon
Date Received:	06/13/19	Project:	0717-02-01 American Classic Homes
Date Extracted:	06/18/19	Lab ID:	906258-39
Date Analyzed:	06/18/19	Data File:	906258-39.176
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
----------	------------------------------

Arsenic	5.32
Lead	14.2

DRAFT

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	G8-0-6"	Client:	EcoCon
Date Received:	06/13/19	Project:	0717-02-01 American Classic Homes
Date Extracted:	06/18/19	Lab ID:	906258-40
Date Analyzed:	06/18/19	Data File:	906258-40.177
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
----------	------------------------------

Arsenic	11.2
Lead	17.0

DRAFT

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	I7-0-6"	Client:	EcoCon
Date Received:	06/13/19	Project:	0717-02-01 American Classic Homes
Date Extracted:	06/18/19	Lab ID:	906258-41
Date Analyzed:	06/19/19	Data File:	906258-41.036
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
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Arsenic	14.3
Lead	45.8

DRAFT

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	D6-0-6"	Client:	EcoCon
Date Received:	06/13/19	Project:	0717-02-01 American Classic Homes
Date Extracted:	06/18/19	Lab ID:	906258-42
Date Analyzed:	06/19/19	Data File:	906258-42.052
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
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Arsenic	25.9
Lead	73.2

DRAFT

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	D7-0-6"	Client:	EcoCon
Date Received:	06/13/19	Project:	0717-02-01 American Classic Homes
Date Extracted:	06/18/19	Lab ID:	906258-43
Date Analyzed:	06/19/19	Data File:	906258-43.053
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
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Arsenic	32.6
Lead	95.7

DRAFT

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	F8-0-6"	Client:	EcoCon
Date Received:	06/13/19	Project:	0717-02-01 American Classic Homes
Date Extracted:	06/18/19	Lab ID:	906258-44
Date Analyzed:	06/19/19	Data File:	906258-44.054
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
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Arsenic	43.0
Lead	93.7

DRAFT

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	E8-0-6"	Client:	EcoCon
Date Received:	06/13/19	Project:	0717-02-01 American Classic Homes
Date Extracted:	06/18/19	Lab ID:	906258-45
Date Analyzed:	06/19/19	Data File:	906258-45.055
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
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Arsenic	18.5
Lead	42.8

DRAFT

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	A2-0-6"	Client:	EcoCon
Date Received:	06/13/19	Project:	0717-02-01 American Classic Homes
Date Extracted:	06/18/19	Lab ID:	906258-46
Date Analyzed:	06/19/19	Data File:	906258-46.082
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
----------	------------------------------

Arsenic	14.9
Lead	20.4

DRAFT

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	I4-0-6"	Client:	EcoCon
Date Received:	06/13/19	Project:	0717-02-01 American Classic Homes
Date Extracted:	06/18/19	Lab ID:	906258-47
Date Analyzed:	06/19/19	Data File:	906258-47.083
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
----------	------------------------------

Arsenic	12.9
Lead	53.6

DRAFT

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	E5-0-6"	Client:	EcoCon
Date Received:	06/13/19	Project:	0717-02-01 American Classic Homes
Date Extracted:	06/18/19	Lab ID:	906258-48
Date Analyzed:	06/19/19	Data File:	906258-48.084
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
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Arsenic	27.1
Lead	76.0

DRAFT

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	B6-0-6"	Client:	EcoCon
Date Received:	06/13/19	Project:	0717-02-01 American Classic Homes
Date Extracted:	06/18/19	Lab ID:	906258-49
Date Analyzed:	06/19/19	Data File:	906258-49.085
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
----------	------------------------------

Arsenic	29.4
Lead	194

DRAFT

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	C5-6-12 “	Client:	EcoCon
Date Received:	06/13/19	Project:	0717-02-01 American Classic Homes
Date Extracted:	06/18/19	Lab ID:	906258-50
Date Analyzed:	06/19/19	Data File:	906258-50.088
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
----------	------------------------------

Arsenic	5.06
Lead	10.3

DRAFT

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	I56-12 “	Client:	EcoCon
Date Received:	06/13/19	Project:	0717-02-01 American Classic Homes
Date Extracted:	06/18/19	Lab ID:	906258-51
Date Analyzed:	06/19/19	Data File:	906258-51.089
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
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Arsenic	8.71
Lead	29.6

DRAFT

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	C6-0-6"	Client:	EcoCon
Date Received:	06/13/19	Project:	0717-02-01 American Classic Homes
Date Extracted:	06/18/19	Lab ID:	906258-52
Date Analyzed:	06/19/19	Data File:	906258-52.090
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
----------	------------------------------

Arsenic	27.0
Lead	77.9

DRAFT

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	J5-0-6"	Client:	EcoCon
Date Received:	06/13/19	Project:	0717-02-01 American Classic Homes
Date Extracted:	06/18/19	Lab ID:	906258-53
Date Analyzed:	06/19/19	Data File:	906258-53.091
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
----------	------------------------------

Arsenic	9.32
Lead	41.7

DRAFT

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	E1-0-6"	Client:	EcoCon
Date Received:	06/13/19	Project:	0717-02-01 American Classic Homes
Date Extracted:	06/18/19	Lab ID:	906258-54
Date Analyzed:	06/19/19	Data File:	906258-54.092
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
----------	------------------------------

Arsenic	15.2
Lead	61.5

DRAFT

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	B1-6-12 “	Client:	EcoCon
Date Received:	06/13/19	Project:	0717-02-01 American Classic Homes
Date Extracted:	06/18/19	Lab ID:	906258-55
Date Analyzed:	06/19/19	Data File:	906258-55.093
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
----------	------------------------------

Arsenic	4.14
Lead	18.3

DRAFT

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	F7-0-6"	Client:	EcoCon
Date Received:	06/13/19	Project:	0717-02-01 American Classic Homes
Date Extracted:	06/18/19	Lab ID:	906258-56
Date Analyzed:	06/19/19	Data File:	906258-56.094
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
----------	------------------------------

Arsenic	26.2
Lead	42.1

DRAFT

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	E2-6-12 “	Client:	EcoCon
Date Received:	06/13/19	Project:	0717-02-01 American Classic Homes
Date Extracted:	06/18/19	Lab ID:	906258-57
Date Analyzed:	06/19/19	Data File:	906258-57.095
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
----------	------------------------------

Arsenic	11.3
Lead	26.3

DRAFT

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	J4-0-6"	Client:	EcoCon
Date Received:	06/13/19	Project:	0717-02-01 American Classic Homes
Date Extracted:	06/18/19	Lab ID:	906258-58
Date Analyzed:	06/19/19	Data File:	906258-58.096
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
----------	------------------------------

Arsenic	10.8
Lead	127

DRAFT

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	J7-6-12 “	Client:	EcoCon
Date Received:	06/13/19	Project:	0717-02-01 American Classic Homes
Date Extracted:	06/18/19	Lab ID:	906258-59
Date Analyzed:	06/19/19	Data File:	906258-59.097
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
----------	------------------------------

Arsenic	26.5
Lead	78.2

DRAFT

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	J7-0-6"	Client:	EcoCon
Date Received:	06/13/19	Project:	0717-02-01 American Classic Homes
Date Extracted:	06/18/19	Lab ID:	906258-60
Date Analyzed:	06/20/19	Data File:	906258-60.083
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
----------	------------------------------

Arsenic	25.0
Lead	77.3

DRAFT

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	E7-6-12 “	Client:	EcoCon
Date Received:	06/13/19	Project:	0717-02-01 American Classic Homes
Date Extracted:	06/19/19	Lab ID:	906258-61
Date Analyzed:	06/20/19	Data File:	906258-61.084
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
----------	------------------------------

Arsenic	9.76
Lead	16.8

DRAFT

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	I7-6-12 “	Client:	EcoCon
Date Received:	06/13/19	Project:	0717-02-01 American Classic Homes
Date Extracted:	06/19/19	Lab ID:	906258-62
Date Analyzed:	06/20/19	Data File:	906258-62.120
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
----------	------------------------------

Arsenic	7.72
Lead	22.7

DRAFT

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	G5-0-6"	Client:	EcoCon
Date Received:	06/13/19	Project:	0717-02-01 American Classic Homes
Date Extracted:	06/19/19	Lab ID:	906258-63
Date Analyzed:	06/20/19	Data File:	906258-63.121
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
----------	------------------------------

Arsenic	10.2
Lead	21.7

DRAFT

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	F4-6-12 “	Client:	EcoCon
Date Received:	06/13/19	Project:	0717-02-01 American Classic Homes
Date Extracted:	06/19/19	Lab ID:	906258-64
Date Analyzed:	06/20/19	Data File:	906258-64.122
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
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Arsenic	16.2
Lead	25.5

DRAFT

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	H4-0-6"	Client:	EcoCon
Date Received:	06/13/19	Project:	0717-02-01 American Classic Homes
Date Extracted:	06/19/19	Lab ID:	906258-65
Date Analyzed:	06/20/19	Data File:	906258-65.123
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
----------	------------------------------

Arsenic	12.4
Lead	53.2

DRAFT

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	E6-0-6"	Client:	EcoCon
Date Received:	06/13/19	Project:	0717-02-01 American Classic Homes
Date Extracted:	06/19/19	Lab ID:	906258-66
Date Analyzed:	06/20/19	Data File:	906258-66.124
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
----------	------------------------------

Arsenic	23.0
Lead	42.3

DRAFT

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	C5-0-6"	Client:	EcoCon
Date Received:	06/13/19	Project:	0717-02-01 American Classic Homes
Date Extracted:	06/19/19	Lab ID:	906258-67
Date Analyzed:	06/20/19	Data File:	906258-67.125
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
----------	------------------------------

Arsenic	6.85
Lead	13.4

DRAFT

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	E2-0-6"	Client:	EcoCon
Date Received:	06/13/19	Project:	0717-02-01 American Classic Homes
Date Extracted:	06/19/19	Lab ID:	906258-68
Date Analyzed:	06/20/19	Data File:	906258-68.133
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
----------	------------------------------

Arsenic	10.3
Lead	20.8

DRAFT

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	Duff	Client:	EcoCon
Date Received:	06/13/19	Project:	0717-02-01 American Classic Homes
Date Extracted:	06/19/19	Lab ID:	906258-69
Date Analyzed:	06/20/19	Data File:	906258-69.134
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
----------	------------------------------

Arsenic	23.6
Lead	101

DRAFT

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	Method Blank	Client:	EcoCon
Date Received:	Not Applicable	Project:	0717-02-01 American Classic Homes
Date Extracted:	06/18/19	Lab ID:	I9-368 mb
Date Analyzed:	06/18/19	Data File:	I9-368 mb.093
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
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Arsenic	<1
Lead	<1

DRAFT

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	Method Blank	Client:	EcoCon
Date Received:	Not Applicable	Project:	0717-02-01 American Classic Homes
Date Extracted:	06/18/19	Lab ID:	I9-370 mb
Date Analyzed:	06/18/19	Data File:	I9-370 mb.150
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
----------	------------------------------

Arsenic	<1
Lead	<1

DRAFT

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	Method Blank	Client:	EcoCon
Date Received:	Not Applicable	Project:	0717-02-01 American Classic Homes
Date Extracted:	06/18/19	Lab ID:	I9-371 mb
Date Analyzed:	06/19/19	Data File:	I9-371 mb.032
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
----------	------------------------------

Arsenic	<1
Lead	<1

DRAFT

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	Method Blank	Client:	EcoCon
Date Received:	Not Applicable	Project:	0717-02-01 American Classic Homes
Date Extracted:	06/19/19	Lab ID:	I9-372 mb
Date Analyzed:	06/21/19	Data File:	I9-372 mb.038
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
----------	------------------------------

Arsenic	<1
Lead	<1

DRAFT

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 06/24/19

Date Received: 06/13/19

Project: 0717-02-01 American Classic Homes, F&BI 906258

**QUALITY ASSURANCE RESULTS
FOR THE ANALYSIS OF SOIL SAMPLES
FOR TOTAL METALS USING EPA METHOD 6020B**

Laboratory Code: 906258-20 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Arsenic	mg/kg (ppm)	10	2.99	84	81	75-125	4
Lead	mg/kg (ppm)	50	4.99	93	91	75-125	2

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Arsenic	mg/kg (ppm)	10	99	80-120
Lead	mg/kg (ppm)	50	115	80-120

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 06/24/19

Date Received: 06/13/19

Project: 0717-02-01 American Classic Homes, F&BI 906258

**QUALITY ASSURANCE RESULTS
FOR THE ANALYSIS OF SOIL SAMPLES
FOR TOTAL METALS USING EPA METHOD 6020B**

Laboratory Code: 906258-21 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Arsenic	mg/kg (ppm)	10	25.6	99	115	75-125	15
Lead	mg/kg (ppm)	50	57.0	91	102	75-125	11

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Arsenic	mg/kg (ppm)	10	94	80-120
Lead	mg/kg (ppm)	50	106	80-120

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 06/24/19

Date Received: 06/13/19

Project: 0717-02-01 American Classic Homes, F&BI 906258

**QUALITY ASSURANCE RESULTS
FOR THE ANALYSIS OF SOIL SAMPLES
FOR TOTAL METALS USING EPA METHOD 6020B**

Laboratory Code: 906258-41 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Arsenic	mg/kg (ppm)	10	12.3	100	102	75-125	2
Lead	mg/kg (ppm)	50	39.4	101	98	75-125	3

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Arsenic	mg/kg (ppm)	10	91	80-120
Lead	mg/kg (ppm)	50	106	80-120

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 06/24/19

Date Received: 06/13/19

Project: 0717-02-01 American Classic Homes, F&BI 906258

**QUALITY ASSURANCE RESULTS
FOR THE ANALYSIS OF SOIL SAMPLES
FOR TOTAL METALS USING EPA METHOD 6020B**

Laboratory Code: 906258-61 x5 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Arsenic	mg/kg (ppm)	10	8.69	78	83	75-125	6
Lead	mg/kg (ppm)	50	16.4	91	87	75-125	4

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Arsenic	mg/kg (ppm)	10	90	80-120
Lead	mg/kg (ppm)	50	107	80-120

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Data Qualifiers & Definitions

- a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.
- b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.
- ca - The calibration results for the analyte were outside of acceptance criteria. The value reported is an estimate.
- c - The presence of the analyte may be due to carryover from previous sample injections.
- cf - The sample was centrifuged prior to analysis.
- d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.
- dv - Insufficient sample volume was available to achieve normal reporting limits.
- f - The sample was laboratory filtered prior to analysis.
- fb - The analyte was detected in the method blank.
- fc - The analyte is a common laboratory and field contaminant.
- hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.
- hs - Headspace was present in the container used for analysis.
- ht - The analysis was performed outside the method or client-specified holding time requirement.
- ip - Recovery fell outside of control limits due to sample matrix effects.
- j - The analyte concentration is reported below the lowest calibration standard. The value reported is an estimate.
- J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.
- jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.
- js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.
- lc - The presence of the analyte is likely due to laboratory contamination.
- L - The reported concentration was generated from a library search.
- nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.
- pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.
- ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.
- vo - The value reported fell outside the control limits established for this analyte.
- x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

906258

SAMPLE CHAIN OF CUSTODY

ME 06-13-19

B14

Page # 1 of 7

Send Report To Stephen Spencer

Company ECI

Address PO Box 153

City, State, ZIP Fox Island WA 98333

Phone # 2539217059 Fax #

Email Address Stephen@alleci.com

SAMPLERS (signature) *Stephen Spencer*
PROJECT NAME/NO. 0717-02-01 American Classic Homes

PO #

PROJECT ADDRESS

30231 S 304th St Federal Way

• ELECTRONIC DATA REQUESTED

TURNAROUND TIME
• Standard Turnaround
• RUSH
Rush charges authorized by:

SAMPLE DISPOSAL
• Dispose after 30 days
• Return samples
• Will call with instructions
Samples Received at 25 °C

Sample ID	Lab ID	Date	Time	Sample Type	# of containers	ANALYSES REQUESTED					Notes
						TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260	SVOCs by 8270	
B4-6-12"	01	06/13/2019		Soil	1						X per SS 6/14/19 ME Tacona Smelter Plume
A1-0-6"	02	06/13/2019		Soil	1						
B2-6-12"	03	06/13/2019		Soil	1						
D1-0-6"	04	06/13/2019		Soil	1						
B1-0-6"	05	06/13/2019		Soil	1						
F4-0-6"	06	06/13/2019		Soil	1						
D4-6-12"	07	06/13/2019		Soil	1						
C3-0-6"	08	06/13/2019		Soil	1						
C4-0-6"	09	06/13/2019		Soil	1						
B4-0-6"	10	06/13/2019		Soil	1						

SIGNATURE

PRINT NAME

COMPANY

DATE

TIME

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029

Ph. (206) 285-8282

Fax (206) 283-5044

FORMS\COC\COC.DOC

Relinquished by: *Stephen Holt*

Stephen Holt

ECI

6-13-19

1418

Received by: *Melissa Matlock*

Melissa Matlock

Federal S.D.

6/13/19

1420

Relinquished by:

FBI

6-13-19

17:05

Received by: *Houglie*

Houglie

FBI

6-13-19

17:05

Samples received at 25 °C

906258

SAMPLE CHAIN OF CUSTODY ME 06-13-19

BIY

Page # 2 of 7

TURNAROUND TIME

- Standard Turnaround
- RUSH
- Rush charges authorized by:

SAMPLE DISPOSAL

- Dispose after 30 days
- Return samples
- Will call with instructions
- Samples Received at 25 °C

Send Report To _____

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City, State, ZIP _____

Phone # _____ Fax # _____

Email Address _____

SAMPLERS (signature)	
PROJECT NAME/NO.	PO #
PROJECT ADDRESS	
• ELECTRONIC DATA REQUESTED	

TURNAROUND TIME	
• Standard Turnaround	
• RUSH	
Rush charges authorized by:	
SAMPLE DISPOSAL	
• Dispose after 30 days	
• Return samples	
• Will call with instructions	
Samples Received at 25 °C	

Sample ID	Lab ID	Date	Time	Sample Type	# of containers	ANALYSES REQUESTED						Notes
						TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260	SVOCs by 8270	HFS	
A4-0-6"	11	06/13/2019		Soil	1						X	PL, AS
K5-0-6"	12	06/13/2019		Soil	1							
F5-0-6"	13	06/13/2019		Soil	1							
A3-0-6"	14	06/13/2019		Soil	1							
B2-0-6"	15	06/13/2019		Soil	1							
D4-0-6"	16	06/13/2019		Soil	1							
D8-0-6"	17	06/13/2019		Soil	1							
E3-0-6"	18	06/13/2019		Soil	1							
C2-0-6"	19	06/13/2019		Soil	1							
C4-6-12"	20	06/13/2019		Soil	1							

SIGNATURE		PRINT NAME		COMPANY		DATE		TIME	
Relinquished by:									
Received by: <i>Theresa</i>		NORA DEWYER		FBI		6/13/19		17:05	
Relinquished by:									
Received by:									

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Fax (206) 283-5044
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Samples received at 25 °C

906258

SAMPLE CHAIN OF CUSTODY

ME 06-13-14

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SAMPLERS (signature)	
PROJECT NAME/NO.	PO #
PROJECT ADDRESS	
• ELECTRONIC DATA REQUESTED	

TURNAROUND TIME
• Standard Turnaround
• RUSH
Rush charges authorized by: _____
SAMPLE DISPOSAL
• Dispose after 30 days
• Return samples
• Will call with instructions
Samples Received at 25 °C

Sample ID	Lab ID	Date	Time	Sample Type	# of containers	ANALYSES REQUESTED						Notes
						TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260	SVOCs by 8270	HFS	
I6-0-6"	21	06/13/2019		Soil	1							
I5-0-6"	22	06/13/2019		Soil	1							
F6-0-6"	23	06/13/2019		Soil	1							
I8-0-6"	24	06/13/2019		Soil	1							
K4-0-6"	25	06/13/2019		Soil	1							
E4-0-6"	26	06/13/2019		Soil	1							
J8-0-6"	27	06/13/2019		Soil	1							
H6-0-6"	28	06/13/2019		Soil	1							
G7-0-6"	29	06/13/2019		Soil	1							
B5-0-6"	30	06/13/2019		Soil	1							

SIGNATURE

PRINT NAME

COMPANY

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Samples received at 25 °C

906258

SAMPLE CHAIN OF CUSTODY ME 06-13-19

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Page # 4 of 7

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PROJECT NAME/NO.

PO #

PROJECT ADDRESS

ELECTRONIC DATA REQUESTED

TURNAROUND TIME
• Standard Turnaround
• RUSH
Rush charges authorized by:

SAMPLE DISPOSAL
• Dispose after 30 days
• Return samples
• Will call with instructions
Samples Received at 25 °C

ANALYSES REQUESTED

Sample ID	Lab ID	Date	Time	Sample Type	# of containers	ANALYSES REQUESTED						Notes
						TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260	SVOCs by 8270	HFS	
G6-6-12"	31	06/13/2019		Soil	1						X	
G6-0-6"	32	06/13/2019		Soil	1							
D4-0-6"	33	06/13/2019		Soil	1							
D3-0-6"	34	06/13/2019		Soil	1							
K7-0-6"	35	06/13/2019		Soil	1							
D8-6-12"	36	06/13/2019		Soil	1							
E7-0-6"	37	06/13/2019		Soil	1							
H8-0-6"	38	06/13/2019		Soil	1							
H5-0-6"	39	06/13/2019		Soil	1							
C6-0-6"	40	06/13/2019		Soil	1							

SIGNATURE

PRINT NAME

COMPANY DATE TIME

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Received by:

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Received by:

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Seattle, WA 98119-2029
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Received by: FIVE

Samples received at 25 °C

SAMPLE CHAIN OF CUSTODY ME 06-13-19

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Page # 5 of 7

906258

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SAMPLERS (signature)	
PROJECT NAME/NO.	PO #
PROJECT ADDRESS	
• ELECTRONIC DATA REQUESTED	

TURNAROUND TIME
• Standard Turnaround
• RUSH
Rush charges authorized by: _____
SAMPLE DISPOSAL
• Dispose after 30 days
• Return samples
• Will call with instructions
Samples Received at 25 °C

ANALYSES REQUESTED														
Sample ID	Lab ID	Date	Time	Sample Type	# of containers	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260	SVOCs by 8270	HFS	Notes		
I7-0-6"	41	06/13/2019		Soil	1						X			
D6-0-6"	42	06/13/2019		Soil	1									
D7-0-6"	43	06/13/2019		Soil	1									
F8-0-6"	44	06/13/2019		Soil	1									
E8-0-6"	45	06/13/2019		Soil	1									
A2-0-6"	46	06/13/2019		Soil	1									
I4-0-6"	47	06/13/2019		Soil	1									
E5-0-6"	48	06/13/2019		Soil	1									
B6-0-6"	49	06/13/2019		Soil	1									
CS-6-12"	50	06/13/2019		Soil	1									
SIGNATURE						PRINT NAME						COMPANY	DATE	TIME
Relinquished by: Friedman & Bruya, Inc. 3012 16th Avenue West Seattle, WA 98119-2029														
Received by: Ph. (206) 283-8282														
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Samples received at 25 °C

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SAMPLE CHAIN OF CUSTODY ME 06-13-19

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Page # 6 of 7

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PROJECT NAME/NO.

PO #

PROJECT ADDRESS

• ELECTRONIC DATA REQUESTED

TURNAROUND TIME

- Standard Turnaround
- RUSH

Rush charges authorized by: _____

SAMPLE DISPOSAL

- Dispose after 30 days
- Return samples
- Will call with instructions

Samples Received at 25 °C

ANALYSES REQUESTED

Sample ID	Lab ID	Date	Time	Sample Type	# of containers	ANALYSES REQUESTED						Notes
						TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260	SVOCs by 8270	HFS	
I5-6-12*	51	06/13/2019		Soil	1							X
C6-0-6*	52	06/13/2019		Soil	1							
J5-0-6*	53	06/13/2019		Soil	1							
E1-0-6*	54	06/13/2019		Soil	1							
B1-6-12*	55	06/13/2019		Soil	1							
F7-0-6*	56	06/13/2019		Soil	1							
E2-6-12*	57	06/13/2019		Soil	1							
J4-0-6*	58	06/13/2019		Soil	1							
J7-6-12*	59	06/13/2019		Soil	1							
J7-0-6*	60	06/13/2019		Soil	1							

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COMPANY

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TIME

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TIME

Friedman & Bruya, Inc.

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Seattle, WA 98119-2029

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Fax (206) 283-5044

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Received by: HONG NGUYENRelinquished by: EBIReceived by: EBI

6/13/19 17:05

Samples received at 25 °C

906258

SAMPLE CHAIN OF CUSTODY

ME 06-13-19

Page # 7 of 7

134

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Phone # _____ Fax # _____

Email Address _____

SAMPLES (signature)

PROJECT NAME/NO.

PO #

PROJECT ADDRESS

• ELECTRONIC DATA REQUESTED

TURNAROUND TIME

- Standard Turnaround
- RUSH _____
- Rush charges authorized by: _____

SAMPLE DISPOSAL

- Dispose after 30 days _____
- Return samples _____
- Will call with instructions _____
- Samples Received at 25 °C

Sample ID	Lab ID	Date	Time	Sample Type	# of containers	ANALYSES REQUESTED						Notes
						TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260	SVOCs by 8270	HFS	
E7-6-12*	61	06/13/2019		Soil	1						X	
I7-6-12*	62	06/13/2019		Soil	1							
G5-0-6*	63	06/13/2019		Soil	1							
F4-6-12*	64	06/13/2019		Soil	1							
H4-0-6*	65	06/13/2019		Soil	1							
E6-0-6*	66	06/13/2019		Soil	1							
C5-0-6*	67	06/13/2019		Soil	1							
E2-0-6*	68	06/13/2019		Soil	1							
Duff	69	06/13/2019		Soil	1							

Friedman & Bruya, Inc.

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Seattle, WA 98119-2029

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Fax (206) 283-5044

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Relinquished by:

Received by:

HONG NGUYEN

FBI

6/13/19

17:05

Samples received at 25 °C

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Yelena Aravkina, M.S.
Michael Erdahl, B.S.
Arina Podnozova, B.S.
Eric Young, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
(206) 285-8282
fbi@isomedia.com
www.friedmanandbruya.com

May 1, 2019

Kyle Spencer, Project Manager
EcoCon, Inc.
P.O. Box 153
Fox Island, WA 98333

Dear Mr Spencer:

Included are the results from the testing of material submitted on April 23, 2019 from the 0717-01-Soil Sampling, F&BI 904445 project. There are 18 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days, or as directed by the Chain of Custody document. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl
Project Manager

Enclosures
c: Steve Spencer
EMS0501R.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on April 23, 2019 by Friedman & Bruya, Inc. from the EcoCon 0717-01-Soil Sampling, F&BI 904445 project. Samples were logged in under the laboratory ID's listed below.

<u>Laboratory ID</u>	<u>EcoCon</u>
904445 -01	S1-0-6"
904445 -02	S1-Duff
904445 -03	S2-0-6"
904445 -04	S3-Duff
904445 -05	S3-0-6"
904445 -06	S4-0-6"
904445 -07	S5-Duff
904445 -08	S5-0-6"
904445 -09	S6-0-6"
904445 -10	S7-Duff
904445 -11	S7-0-6"
904445 -12	S8-0-6"
904445 -13	S9-0-6"
904445 -14	S10-0-6"

All quality control requirements were acceptable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	S1-0-6"	Client:	EcoCon
Date Received:	04/23/19	Project:	0717-01-Soil Sampling
Date Extracted:	04/25/19	Lab ID:	904445-01
Date Analyzed:	04/25/19	Data File:	904445-01.102
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
----------	------------------------------

Arsenic	11.2
Lead	24.1

DRAFT

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	S1-Duff	Client:	EcoCon
Date Received:	04/23/19	Project:	0717-01-Soil Sampling
Date Extracted:	04/25/19	Lab ID:	904445-02
Date Analyzed:	04/25/19	Data File:	904445-02.103
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
----------	------------------------------

Arsenic	12.3
Lead	32.1

DRAFT

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	S2-0-6"	Client:	EcoCon
Date Received:	04/23/19	Project:	0717-01-Soil Sampling
Date Extracted:	04/25/19	Lab ID:	904445-03
Date Analyzed:	04/25/19	Data File:	904445-03.104
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
----------	------------------------------

Arsenic	3.61
Lead	6.39

DRAFT

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	S3-Duff	Client:	EcoCon
Date Received:	04/23/19	Project:	0717-01-Soil Sampling
Date Extracted:	04/25/19	Lab ID:	904445-04
Date Analyzed:	04/25/19	Data File:	904445-04.107
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
----------	------------------------------

Arsenic	9.36
Lead	25.8

DRAFT

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	S3-0-6"	Client:	EcoCon
Date Received:	04/23/19	Project:	0717-01-Soil Sampling
Date Extracted:	04/25/19	Lab ID:	904445-05
Date Analyzed:	04/25/19	Data File:	904445-05.108
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
----------	------------------------------

Arsenic	16.2
Lead	40.3

DRAFT

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	S4-0-6"	Client:	EcoCon
Date Received:	04/23/19	Project:	0717-01-Soil Sampling
Date Extracted:	04/25/19	Lab ID:	904445-06
Date Analyzed:	04/25/19	Data File:	904445-06.109
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
----------	------------------------------

Arsenic	3.32
Lead	4.48

DRAFT

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	S5-Duff	Client:	EcoCon
Date Received:	04/23/19	Project:	0717-01-Soil Sampling
Date Extracted:	04/25/19	Lab ID:	904445-07
Date Analyzed:	04/25/19	Data File:	904445-07.110
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
----------	------------------------------

Arsenic	7.42
Lead	74.9

DRAFT

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	S5-0-6"	Client:	EcoCon
Date Received:	04/23/19	Project:	0717-01-Soil Sampling
Date Extracted:	04/25/19	Lab ID:	904445-08
Date Analyzed:	04/25/19	Data File:	904445-08.113
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
----------	------------------------------

Arsenic	3.59
Lead	6.99

DRAFT

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	S6-0-6"	Client:	EcoCon
Date Received:	04/23/19	Project:	0717-01-Soil Sampling
Date Extracted:	04/25/19	Lab ID:	904445-09
Date Analyzed:	04/25/19	Data File:	904445-09.114
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
----------	------------------------------

Arsenic	12.7
Lead	29.3

DRAFT

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	S7-Duff	Client:	EcoCon
Date Received:	04/23/19	Project:	0717-01-Soil Sampling
Date Extracted:	04/25/19	Lab ID:	904445-10
Date Analyzed:	04/25/19	Data File:	904445-10.115
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
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Arsenic	8.72
Lead	56.4

DRAFT

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	S7-0-6"	Client:	EcoCon
Date Received:	04/23/19	Project:	0717-01-Soil Sampling
Date Extracted:	04/25/19	Lab ID:	904445-11
Date Analyzed:	04/25/19	Data File:	904445-11.116
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
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Arsenic	8.49
Lead	17.0

DRAFT

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	S8-0-6"	Client:	EcoCon
Date Received:	04/23/19	Project:	0717-01-Soil Sampling
Date Extracted:	04/25/19	Lab ID:	904445-12
Date Analyzed:	04/25/19	Data File:	904445-12.117
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
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Arsenic	6.79
Lead	16.2

DRAFT

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	S9-0-6"	Client:	EcoCon
Date Received:	04/23/19	Project:	0717-01-Soil Sampling
Date Extracted:	04/25/19	Lab ID:	904445-13
Date Analyzed:	04/25/19	Data File:	904445-13.118
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
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Arsenic	10.0
Lead	24.1

DRAFT

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	S10-0-6"	Client:	EcoCon
Date Received:	04/23/19	Project:	0717-01-Soil Sampling
Date Extracted:	04/25/19	Lab ID:	904445-14
Date Analyzed:	04/25/19	Data File:	904445-14.119
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
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Arsenic	3.10
Lead	11.5

DRAFT

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	Method Blank	Client:	EcoCon
Date Received:	Not Applicable	Project:	0717-01-Soil Sampling
Date Extracted:	04/25/19	Lab ID:	I9-271 mb
Date Analyzed:	04/25/19	Data File:	I9-271 mb.097
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
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Arsenic	<1
Lead	<1

DRAFT

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 05/01/19

Date Received: 04/23/19

Project: 0717-01-Soil Sampling, F&BI 904445

**QUALITY ASSURANCE RESULTS
FOR THE ANALYSIS OF SOIL SAMPLES
FOR TOTAL METALS USING EPA METHOD 6020B**

Laboratory Code: 904445-03 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Arsenic	mg/kg (ppm)	10	3.07	75	88	75-125	16
Lead	mg/kg (ppm)	50	5.43	94	104	75-125	10

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Arsenic	mg/kg (ppm)	10	85	80-120
Lead	mg/kg (ppm)	50	107	80-120

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The analyte is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht - The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits due to sample matrix effects.

j - The analyte concentration is reported below the lowest calibration standard. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

SAMPLE CHAIN OF CUSTODY

ME 04-23-19 1 of 2 ⁸¹³

SAMPLERS (signature) [Signature]

Report To Kyle Spencer

Company ECT

Address PO Box 153

City, State, ZIP Tex Island, WA, 98333

Phone 253-279-2003 Email kyle@allec.com

PROJECT NAME

PO #

0717-01-Soil Sampling

REMARKS

INVOICE TO

Page # 1 of 2
TURNAROUND TIME

☒ Standard Turnaround

☐ RUSH

Rush charges authorized by: _____

SAMPLE DISPOSAL

☐ Dispose after 30 days

☐ Archive Samples

☐ Other _____

ANALYSES REQUESTED

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	TPH-HCID	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260C	SVOCs by 8270D	PAHs 8270D SIM	Lead and Arsenic	Notes
S1-0-6"	01	4-22-19		Soil	1								X	
S1-Duff	02													
S2-0-6"	03													
S3-Duff	04													
S3-0-6"	05													
S4-0-6"	06													
S5-Duff	07													
S5-0-6"	08													
S6-0-6"	09													
S7-Duff	10	X		X	X							X		Samples received at 7 °C

SIGNATURE

PRINT NAME

COMPANY

DATE

TIME

Friedman & Bruya, Inc.

3012 16th Avenue West

Seattle, WA 98119-2029

Ph. (206) 285-8282

Relinquished by: [Signature]

Kyle Spencer

ECT

4-22-19

3:09

Received by: [Signature]

Melissa Matlock

Fed ex

4/23/19

10:47

Relinquished by:

Received by:

[Signature]

Adam Phan

FBI

4/23/19

11:55

